

ABSTRACT

A bubble cap has a riser and a cap, separated by a divider that extends to a length at least 50% of a distance measured between the top of the riser and the bottom of the cap. In another aspect, the riser and cap cooperate to provide a skirt height of no less than 1.5". More preferred
5 bubble caps have a relatively high skirt height or long slit length, or both. In yet another aspect, flow-redirecting vanes and plates (e.g., mixing chamber floor and splash deck) cooperate to provide a rough distribution of fluids to subsequent distribution tray(s).